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| 09/650,104 | 08/29/2000 | Baskaran Dharmarajan | MSFT115430 | 9023 |
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| CHRISTENSEN, O'CONNOR, JOHNSON, KINDNESS, PLLC 1420 FIFTH AVENUE SUITE 2800 SEATTLE, WA 98101-2347 | | | HOFFMAN, BRANDON S | |
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| | | | 2136 | |

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|-------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/650,104 | Applicant(s) DHARMARAJAN, BASKARAN | |
| | Examiner Brandon Hoffman | Art Unit 2136 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2004.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 1-21 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-21 are pending in this office action.
2. Applicant's arguments filed June 15, 2004, have been fully considered but they are not persuasive.

Rejections

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

4. Claims 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Spies et al. (U.S. Patent No. 5,689,565).

Regarding claim 16, Spies et al. teaches a computer-readable medium having stored thereon a data structure, comprising:

- A first data field containing data representing a data length identifier and a tag type (fig. 9, ref. num 142); and
- A second data field containing configuration data of said tag type and having a length described by said data length identifier (fig. 9, ref. num 144).

Regarding claim 17, Spies et al. teaches wherein said data structure further comprises a plurality of additional data structures comprising one of said first data field and one of said second data field for a plurality of tags (col. 15, lines 63-67).

Claim Rejections - 35 USC § 103

5. Claims 1-7 and 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shrader et al. (U.S. Patent No. 6,374,359) in view of Quimby (U.S. Patent No. 5,367,573), and further in view of Hardy et al. (U.S. Patent No. 5,623,546).

Regarding claims 1, 12, and 14, Shrader et al. teaches a method/computer-readable medium/computer-controlled apparatus for storing session data on a client computer, comprising:

- Encrypting said encoded configuration data using an encryption key to create encrypted encoded configuration data (fig. 4, ref. num 82);
- Concatenating a secret, a length of the secret, and a length of the length of the secret with said encrypted encoded configuration data to form a session cookie (col. 7, lines 16-21, see response to arguments below); and
- Transmitting said session cookie to said client computer (fig. 3, ref. num 62).

Shrader et al. does not teach encoding said session data in a tag-length-value format to create encoded configuration data, or that the encryption key is modified.

Quimby teaches encoding said session data in a tag-length-value format to create encoded configuration data (col. 2, lines 56-67).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine encoding session data in a tag-length-value format, as taught by Quimby, with the method of Shrader et al. It would have been obvious to combine encoding session data in a tag-length-value format, as taught by Quimby, with the method of Shrader et al. because the TLV format allows an arbitrary number of fields of arbitrary length to be encoded (see col. 3, lines 59-62 of Quimby).

Shrader et al. as modified by Quimby still does not teach that the encryption key is a modified encryption key.

Hardy et al. teaches the encryption key is a modified encryption key (fig. 2).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine using a modified encryption key, as taught by Hardy et al., with the method of Shrader et al. as modified by Quimby. It would have been obvious to combine using a modified encryption key, as taught by Hardy et al., with the method of Shrader et al. as modified by Quimby because the modified encryption key allows the transfer of data between devices without the use of secure lines (see col. 2, lines 38-54 of Hardy et al.).

Regarding claims 2, 13, and 15, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches wherein said modified encryption key comprises a standard encryption key with said secret inserted at a predefined location (see fig. 2 of Hardy et al.).

Regarding claim 3, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches wherein said modified encryption key further comprises a time stamp indicating a time at which said modified encryption key is created (see col. 3, lines 34-53 of Quimby).

Regarding claim 4, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches further comprising:

- Requesting said session cookie from said client computer (see fig. 5, ref. num 90 of Shrader et al.);
- Receiving said session cookie from said client computer (see fig. 5, ref. num 90 of Shrader et al.);
- Extracting said secret from said session cookie (see fig. 5, ref. num 98 of Shrader et al.);
- Creating said modified encryption key by inserting said secret extracted from said session cookie into said standard encryption key at said predefined location (see fig. 3 and col. 6, lines 18-36 of Hardy et al.); and

- Decrypting said session data from said cookie using said modified encryption key (see fig. 5, ref. num 94 of Shrader et al.).

Regarding claim 5, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches further comprising:

- Decoding a tag from said session data (see fig. 5, ref. num 92 of Shrader et al.);
- Determining whether said tag comprises a valid tag (see fig. 5, ref. num 96 and 98 of Shrader et al.); and
- In response to determining that said tag comprises a valid tag, configuring said server using data contained in said tag (see fig. 5, ref. num 100 of Shrader et al.).

Regarding claim 6, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches further comprising:

- In response to determining that said tag does not comprise a valid tag, determining whether additional tags remain to be decoded from said encoded configuration data (see fig. 5, ERROR of Shrader et al.); and
- In response to determining that additional tags remain to be decoded, decoding a next tag and determining whether said next tag comprises a valid tag (see fig. 5, ref. num 92, 96, and 98 of Shrader et al.).

Because the Shrader et al. reference was modified by the Quimby reference to include TLV, the decoding step of Shrader et al. will now decode multiple tags, instead

of just the one cookie as displayed in the Shrader et al. reference. The modification demands the steps of processing every set of tag-length-value parameter that belongs to the entire session data. This means instead of producing ERROR, as shown in figure 5 of Shrader et al., the modification now checks the next set of TLV values.

Regarding claim 7, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches further comprising: in response to determining that said next tag comprises a valid tag, configuring said server using data contained in said next tag (see fig. 5, ref. num 100 of Shrader et al.).

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shrader et al. (U.S. PN '359) as modified by Quimby (U.S. PN '573) and Hardy et al. (U.S. PN '546), and further in view of Becker et al. (U.S. Patent No. 6,557,038).

Regarding claim 8, the combination of Shrader et al. as modified by Quimby and Hardy et al. teaches all the limitations of claims 1-7 above. However, the combination of Shrader et al. as modified by Quimby and Hardy et al. does not teach further comprising: in response to determining that additional tags do not remain to be decoded, periodically authenticating said session cookie.

Becker et al. teaches further comprising: in response to determining that additional tags do not remain to be decoded, periodically authenticating said session cookie (fig. 12).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine periodically authenticating said session cookie if additional tags do not remain, as taught by Becker et al., with the method of Shrader et al. as modified by Quimby and Hardy et al. It would have been obvious to combine periodically authenticating said session cookie if additional tags do not remain, as taught by Becker et al., with the method of Shrader et al. as modified by Quimby and Hardy et al. because the periodic authentication would enable the user to remain connected to the server. This would allow the user to not have to login repeatedly and also keep other third parties from accessing the data that was transferred between the user and the server.

Regarding claim 9, the combination of Shrader et al. as modified by Quimby and Hardy et al., and further in view of Becker et al. teaches wherein periodically authenticating said session cookie comprises:

- Starting a session timer (see fig. 12, ref. num 1202 of Becker et al.);
- Determining whether said session timer has elapsed (see fig. 12, ref. num 1204 of Becker et al.); and

- In response to determining that said session timer has elapsed (see fig. 12, ref. num 1206 of Becker et al.),
 - Requesting said session cookie from said client computer (see fig. 5, ref. num 90 of Shrader et al.),
 - Decrypting and decoding a tag contained in said session cookie (see fig. 5, ref. num 92 and 94 of Shrader et al.), and
 - Determining whether said tag comprises a valid tag (see fig. 5, ref. num 96 and 98 of Shrader et al.).

Regarding claim 10, the combination of Shrader et al. as modified by Quimby and Hardy et al., and further in view of Becker et al. teaches further comprising:

- In response to determining that said tag comprises a valid tag,
 - Generating a new session cookie (see fig. 4, ref. num 80 of Shrader et al.),
 - Transmitting said new session cookie to said client computer (see fig. 3, ref. num 62 of Shrader et al.), and
 - Resetting said session timer (see fig. 11, ref. num 1104 of Becker et al.).

Regarding claim 11, the combination of Shrader et al. as modified by Quimby and Hardy et al., and further in view of Becker et al. teaches further comprising: in response to determining that said tag does not comprise a valid tag, ending a

communications session between said server computer and said client computer (see fig. 10, ref. num 1004 of Becker et al.).

Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spies et al. (USPN '565).

Regarding claim 18, Spies et al. teaches wherein said data length identifier comprises the first two bits of said first data field (col. 16, lines 6-7).

It would have been obvious to change the 'fixed-size' field from 32-bit to 2-bit, or any other size, as long as the field data remained fixed.

Regarding claim 19, Spies et al. teaches wherein said data length identifier comprises data indicating that the length of said second data field is one byte (col. 16, lines 10-14).

Regarding claim 20, Spies et al. teaches wherein said data length identifier comprises data indicating that the length of said second data field is four bytes (col. 16, lines 10-14).

Regarding claim 21, Spies et al. teaches wherein said data length identifier comprises data indicating that said tag type comprises an extended tag type (col. 16, lines 10-14).

It would have been obvious to indicate the length of the second data field is one byte or four bytes. Spies et al. teaches that the field is variable (meaning it can be different, i.e., one byte or four bytes) and that it is an exact byte count of the data contained in the value field.

Response to Arguments

6. Applicant argues:

- a. Claims 16 and 17 are allowed because the Spies et al. reference uses the word "consists" (meaning only those fields – no other fields allowed) and the tag 142, length 144, and value 146 are not individually capable of containing data that identifies two distinct data types (page 5, last paragraph through page 6, third paragraph).
- b. Claims 1-15 fail to teach concatenating a secret, the length of the secret, and a length of the length of the secret with encrypted coded configuration data to form a session cookie (page 7, first paragraph through page 8, first paragraph).
- c. Dependent claims are allowable based on their dependency on independent claims (page 7, end of first paragraph).

Regarding argument (a), examiner disagrees with applicant. The claim never states that the data structure is required to carry two distinct data types. Also, the definition of TLV (tag-length-value) states the tag defines the type of data contained, the

length consists of the total length of the tag, length, and value, and the value contains the value to be transmitted. One TLV data structure can contain one type of data, while another TLV data structure can contain a different type of data.

Regarding argument (b), examiner disagrees with applicant. Shrader et al. teaches, in col. 7, lines 16-21, the process of concatenating verification values together in order to construct a cookie. The cookie values can have different lengths because the TLV format used may contain more values in one instance and less in another instance. In order to solve that problem, a length field would be required to tell the cookie parser the length of the fields within the cookie. The length field would then also be dynamic in size, so a length of the length field, which is static, could describe the length field, which then describes the cookie data.

Regarding argument (c), examiner disagrees with applicant. Based on the arguments set forth by the examiner for arguments (a) and (b), the dependent claims stand as rejected.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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